Amendments to the Claims

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1.-13. (Canceled)

14. (Canceled)

15. (Currently Amended) The apparatus of claim 41, wherein the occupancy sensor is activated when the ~~timed~~ sampling period is initiated.

16. (Currently Amended) The apparatus of claim 41, wherein the ~~timed~~ sampling period is reset and initiated after expiration of a delay period following each simultaneous occurrence of an indication of a closed vehicle door, a vehicle being off, and the second signal being generated.

17. (Previously Presented) The apparatus of claim 41, wherein the occupancy sensor is energized and communicatively coupled to an occupant restraint control system when a vehicle is off.

18. (Previously Presented) The apparatus of claim 41, wherein the occupancy sensor is energized and communicatively coupled to an occupant restraint control system when a vehicle is on.

19. (Currently Amended) The apparatus of claim 41, wherein the ~~timed~~ sampling period ends a preset time after it is initiated.

20. (Previously Presented) The apparatus of claim 41, further including means for resetting to reset the alarm signal, wherein after the alarm signal is generated, the logic circuit seals-in the alarm signal until interrupted by the means for resetting.

21. (Canceled)

22. (Previously Presented) The system of claim 42, wherein the compartment is a trunk.

23. (Currently Amended) The system of claim 42, further including an ignition sensor to indicate an on/off condition of the vehicle and wherein the logic component ~~processor~~ includes a ~~timed~~ sampling period that is reset and initiated after each simultaneous occurrence of the occupancy sensor indicating the vehicle is occupied, the ignition sensor indicating that the vehicle is off, and the temperature sensor indicating a temperature exceeding a preset limit.

24. (Currently Amended) The system of claim 42, further including a vehicle door sensor to indicate an open/closed condition of a vehicle door and wherein the logic component ~~processor~~ includes a ~~timed~~ sampling period that is reset and initiated after each simultaneous occurrence of the occupancy sensor indicating the vehicle is occupied, the vehicle door sensor indicating that a vehicle door is closed, and the temperature sensor indicating a temperature exceeding a preset limit.

25. (Previously Presented) The system of claim 42, wherein the occupancy sensor senses whether a seat within the compartment is occupied.

26. (Currently Amended) The system of claim 42, further comprising a means for testing the system by generating a set of conditions that will cause the logic component ~~processor~~ to initiate the audible alarm.

27. (Canceled)

28. (Previously Presented) The method of claim 43, further including activating at least one occupancy sensor when the second signal is generated.

29. (Currently Amended) The method of claim 43, further including resetting the ~~timed~~ sampling period when the vehicle is indicated as being on.

30. (Currently Amended) The method of claim 43, further including resetting the ~~timed~~ sampling period when a vehicle door is indicated as being open.

31. (Canceled)

32. (Previously Presented) The apparatus of claim 44, wherein at least two of the occupancy, temperature, logic, and delay components are combined in a single electrical circuit.

33. (Previously Presented) The apparatus of claim 44, wherein the logic component is enabled in response to the second signal being generated.

34. (Currently Amended) The apparatus of claim 44, wherein the logic component generates the audible alarm signal responsive to the first and second signals being generated during a ~~timed~~ sampling period.

35. (Currently Amended) The apparatus of claim 34, wherein the ~~timed~~ sampling period is expired, the occupancy sensor is disabled.

36. (Currently Amended) The apparatus of claim 34, wherein the ~~timed~~ sampling period is initiated when the second signal is generated.

37. (Currently Amended) The apparatus of claim 34, wherein the ~~timed~~ sampling period is ended if the period ends without the simultaneous occurrence of an indication of a closed vehicle door and the second signal being generated.

38. (Canceled)

39. (Currently Amended) The apparatus of claim 45, wherein the temperature component generates a second signal when the vehicle compartment ambient temperature exceeds a high temperature limit.

40. (Currently Amended) The apparatus of claim 45, wherein the temperature component generates a second signal when the vehicle compartment ambient temperature exceeds a low temperature limit.

41. (Currently Amended) An apparatus for monitoring a vehicle compartment, comprising:

an occupancy sensor for generating a first signal indicative of the compartment being occupied;

a temperature element for generating a second signal indicative of a vehicle compartment ambient temperature exceeding a preset limit; and

a logic circuit for generating an alarm signal responsive to the first and second signals being generated during a ~~timed~~ sampling period,

wherein the ~~timed~~ sampling period is initiated after expiration of a delay period following each simultaneous occurrence of an indication of a closed vehicle door and the second signal being generated.

42. (Currently Amended) A system for monitoring a vehicle having a compartment, comprising:

an occupancy sensor for sensing whether the compartment is occupied;

a temperature sensor for measuring a vehicle compartment ambient temperature;

a logic component connected to the occupancy sensor and the temperature sensor to determine whether to initiate an alarm based upon information received from the occupancy and temperature sensors;

an alarm component connected to the logic component ~~processor~~ for producing an alarm when initiated by the logic component ~~processor~~; and

a vehicle door sensor to indicate an open/closed condition of a vehicle door,

wherein the logic component ~~processor~~ includes a ~~timed~~ sampling period that is initiated after each simultaneous occurrence of the occupancy sensor indicating the vehicle is occupied, the vehicle door sensor indicating that a vehicle door condition has changed between open and closed, and the temperature sensor indicating a temperature exceeding a preset limit.

43. (Currently Amended) A method of monitoring a vehicle having a compartment, comprising:

generating a first signal indicative of the compartment being occupied;

generating a second signal indicative of a vehicle compartment ambient temperature exceeding a preset limit; and

generating an alarm signal responsive to the first and second signals being generated during a ~~timed~~ sampling period,

wherein the ~~timed~~ sampling period is initiated after expiration of a delay period following each simultaneous occurrence of an indication of a closed vehicle door and the second signal generated.

44. (Previously Presented) An apparatus, comprising:

an occupancy component for generating a first signal indicative of a vehicle compartment being occupied;

a temperature component for generating a second signal indicative of a vehicle compartment ambient temperature exceeding a preset limit;

a logic component for generating an alarm signal responsive to the first and second signals being generated; and

a delay component that delays the generation of the alarm for a period of time upon an indication of a vehicle door closing;

wherein the period of time is initiated after each simultaneous occurrence of an indication of a closed vehicle door and the second signal being generated.

45. (Currently Amended) An apparatus for monitoring a vehicle compartment, comprising:

an occupancy component for generating a first signal indicative of the compartment being occupied;

a temperature component for generating a second signal indicative of a vehicle compartment ambient temperature exceeding a preset limit; and

a logic component for generating an alarm signal responsive to the first and second signals being generated during a ~~timed~~ sampling period,

wherein the ~~timed~~ sampling period is initiated after each simultaneous occurrence of an indication of a closed vehicle door and the second signal being generated.